REMARKS

The Examiner rejected claims 1-11 as being indefinite because the recitation at claim 1, lines 12-14 and claim 7, lines 11-13 was unclear.

By this Amendment claims 1 and 7 have been amended to clarify that whether each input signal is a speech and voice band signal or an ISDN digital signal is judged first, and then, further judging a signal type of each input signal that is judged as a speech and voice band signal. The intended meaning of this recitation is now clear and each of Claims 1-11 is in compliance with 35 U.S.C. §112. Claims 1-14 remain for consideration.

Claims 1-4, 6-9 and 11-13 were rejected as being unpatentable over Nardin in view of Lyons (6,075,798), and claims 5, 10 and 14 were rejected as being unpatentable over Nardin and Lyons further in view of Lyons (6,282,196). However, the Examiner's reasons for these rejections are considered to be erroneous. Reconsideration of the rejections in view of the following argument is requested.

Please note first that Nardin is directed to a method and apparatus for selecting the best routing for cell messages, in which an important feature is to calculate total end-to-end time delays to ensure that a maximum allowable end-to-end delay is not exceeded (see col. 2, lines 40-60).

In contrast, the claimed invention has nothing to do with the selection of message routings or the measurement of total end-to-end time delays. The stated object of the present invention is to reduce the bandwidth necessary for carrying messages over an ATM network, for signals received on an STM network. Consequently, there is no sound motivation for those wishing to reduce the bandwidth of the ATM network to consider the disclosure of Nardin

regarding the message routine selection as relevant to all.

In fact, the present invention is specifically directed to the transfer of the speech and voice signals, as well as the ISDN digital signals, between the ATM network and the STM network, but Nardin completely fails to disclose any teaching directed to the data transfer between the ATM and the STM.

Nardin also only mentions the dynamic selection of a compression scheme by VDPROC 156, but this VDPROC only compresses voice signals by causing inhibition of cell transmissions during the intervals of silence. In contrast, the claimed compression scheme is dynamically changed for each input signal (which can be either the speech and voice band signal or the ISDN digital signal), and the signal type information is also used in dynamically changing the compression scheme.

In this regard, the Examiner erroneously contended that the signal type is determined by Nardin's NTC (Network Trunk Card) 182. However, none of the functions of this NTC 182 actually described by Nardin is a determination of the signal type (see col. 5, lines 11-24).

The Examiner admitted that Nardin fails to disclose the steps (d) and (e) of claims 1, but then contended that these steps are disclosed in Lyons ('798). However, Nardin actually describes that "each packet assembled and disassembled is a fixed length packet" (col. 4, lines 26-27), so that the Examiner's attempt to incorporate Lyons feature of assembling variable length packets and assembling ATM cells by multiplexing such variable length packets into Nardin contradicts with Nardin's disclosure, so that there is no sound motivation to contemplate such a combination to begin with. The references teach away from one another and the only basis for the combination proposed by the Examiner is hindsight. This is not a proper basis for combining references.

Thus, the combination of Nardin and Lyons actually fails to suggest or imply the data transfer between the ATM and the STM as explicitly recited in claim 1, and therefore the Examiner's rejection based on Nardin and Lyons is totally groundless.

The same argument also applies to all of claims 2-6, which depend from claim 1, as well as the transmitting side device claims 7-11 and the receiving side device claims 12-14, that correspond to the method claims 1-6.

Attached hereto is a marked-up version of the changes made to the claims by the current Amendment. The attached page is captioned "Version With Markings to Show Changes Made."

In conclusion, it is believed that claims 1-14 are patentably distinct over the prior art of record. This application is now in condition for formal allowance. Favorable reconsideration and allowance are respectfully solicited.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this Amendment is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to: BOX NON-FEE AMENDMENT, COMMISSIONER FOR PATENT, WASHINGTON, D.C. 20231 on October 15, 2002.

Sue Duggan

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please amend claims 1 and 7 as follows:

1(Amended). A transfer method for transferring speech and voice band signal and ISDN (Integrated Services Digital Network) digital signal between an ATM (Asynchronous Transfer Mode) network and an STM (Synchronous Transfer Mode) network, the transfer method comprising the steps of:

(a) obtaining a silence information by detecting silence sections in input signals entered from the STM network;

(b) obtaining a signal type information for each input signal by judging whether each input signal is a speech and voice band signal or an ISDN digital signal, and further judging a signal type of [the speech and voice band signal when] each input signal that is judged as the speech and voice band signal;

(c) dynamically changing a compression scheme of each input signal into a most appropriate compression scheme according to the silence information obtained at the step (a) and the signal type information obtained at the stop (b), and compressing each signal using the most appropriate compression scheme;

(d) assembling variable length packets each having a length shorter than that of an ATM cell from signals compressed at the step (c) using the silence information obtained at the step (a) and the signal type information obtained at the step (b);

(e) assembling ATM cells by multiplexing a plurality of the variable length packets assembled at the step (d), and transferring the ATM cells to the ATM network;

(f) receiving input ATM cells from the ATM network and disassembling the input ATM cells into received packets;

(g) disassembling the received packets obtained at the step (f) into received signals;

(h) judging a signal compression scheme of each received signal obtained at the step (g);

(i) expanding each received signal using the signal compression scheme judged at the step (h); and

(j) reproducing silence sections in signals expanded at the step (i) so as to generate STM signals, and transferring the STM signals to the STM network.

7(Amended). A transmitting side device for transferring speech and voice band signals and ISDN (Integrated Services Digital Network) digital signals from an STM (Synchronous Transfer Mode) network to an ATM (Asynchronous Transfer Mode) network, the device comprising:

a silence detection unit for obtaining a silence information by detecting silence sections in input signals entered from the STM network;

a signal type judgment unit for obtaining a signal type information for each input signal by judging whether each input signal is a speech and voice band signal or an ISDN digital signal, and further judging a signal type of [the speech and voice band signal when] each input signal that is judged as the speech and voice band signal;

a signal compression unit for dynamically changing a compression scheme of each input signal into a most appropriate compression scheme according to the silence information obtained by the silence detection unit and the signal type information obtained by the signal type

judgement unit, and compressing each input signal using the most appropriate compression scheme;

a packet assembling unit for assembling variable length packets each having a length shorter than that of an ATM cell from signal compressed by the signal compression unit using the silence information obtained by the silence detection unit and the signal type information obtained by the signal type judgment unit; and

an ATM cell assembling unit for assembling ATM cells by multiplexing a plurality of the variable length packets assembled by the packet assembling unit, and transferring the ATM cells to the ATM network.